

Hearing health of Aboriginal and Torres Strait Islander peoples

March 2019¹

Otitis Media

Otitis media is an inflammation of the middle ear typically caused by bacterial and viral pathogens. It is usually associated with a build-up of fluid, which may or may not be infected. Symptoms, severity, frequency and length of the condition vary from mild discomfort to severe pain, fluid discharge and serious loss of hearing (Darwin Otitis Guidelines Group et al, 2010).

Hearing loss among Aboriginal and Torres Strait Islander peoples and especially children and young people is widespread and much more common than for non-Indigenous Australians (Burns & Thomson, 2013) and is also characterised by earlier onset, greater severity and persistence (Jervis-Bardy et al, 2014). In 2014–15, 8.4% of Aboriginal and Torres Strait Islander children aged 0–14 years had a hearing condition - 2.9 times the rate for non-Indigenous children (Productivity Commission, 2016).

Several studies have found that children living in remote communities experience high rates of severe and persistent ear infections (Gunasekera et al, 2009; Coates, 2009; Edwards & Moffat, 2014). As many as 90% of Aboriginal and Torres Strait Islander children in some remote communities can have otitis media infections at any one time. While not as prevalent as in remote communities, the rate of otitis media among Aboriginal and Torres Strait Islander children living in urban and rural settings is still estimated to be around 40% (House of Representatives, 2017).

Role of the audiologist in Aboriginal and Torres Strait Islander hearing health care

Audiologists are experts in good hearing and ear health (hearing health). Using their specialist skills and knowledge, audiologists assess how people of all ages hear and, with the application of technology, re/habilitation and therapy, audiologists help people with hearing loss and related disorders with their learning and communication difficulties.

Audiologists – together with other health professions such as Aboriginal and Torres Strait Islander Health Practitioners², medical practitioners, nurses and speech pathologists – play a crucial role in hearing health care for Aboriginal and Torres Strait Islander peoples. They work to reduce the incidence of otitis media and the negative psychosocial impacts of otitis media and hearing loss across many different fields, including primary health, diagnostic assessment, specialist medical and rehabilitation services, research, health workforce development and service program management.

¹ Acknowledgements: Audiology Australia wishes to acknowledge and thank its members, Indigenous Allied Health Australia, the National Aboriginal Health Community Controlled Organisation and the National Aboriginal and Torres Strait Islander Health Worker Association for their substantive feedback and input into the development of the position statement.

² Different position titles can be used to describe Aboriginal and Torres Strait health workers who are working to deliver culturally appropriate care to Aboriginal and Torres Strait Islander peoples. These may include Aboriginal and Torres Strait Islander Health Practitioners, Aboriginal and Torres Strait Health Workers or allied health assistants. The position statement uses one title - "Aboriginal and Torres Strait Islander Health Practitioner" - for consistency.

While age of onset of chronic ear disease occurs between 6 and 18 months of age, data indicates that the fitting of first hearing aids occurs, on average, significantly later for Aboriginal and Torres Strait Islander children, at 6 years of age (Australian Hearing, 2018). This suggests delays in the referral pathway from identification of chronic ear disease by primary health practitioners, to evaluation of hearing by a diagnostic audiologist, to evaluation of the child's hearing and communication needs. Accessing age appropriate behavioural hearing tests within the first 3.5 years is critical to this pathway, so that early and appropriate action can be taken to avert the long term effects of unremediated hearing loss. Audiologists are key to this, as they are the only hearing practitioners qualified to evaluate the hearing of children aged under 3 years.

The need for a coordinated, national approach to otitis media

Around Australia, there are a range of programs and services that address the hearing health needs of Aboriginal and Torres Strait Islander peoples. These include the Queensland Government's Deadly Ears Program, WA's 'Ear Bus' service and the Northern Territory's (NT) Hearing Health Program. The Commonwealth statutory agency Australian Hearing also provides rehabilitative hearing services to Aboriginal and Torres Strait Islander peoples aged under 26 years and over 50 years through its hearing centres and outreach program.

Among the most important aspects of these services and the impacts they make is the continuity and sustainability of servicing. Improvements in hearing health, especially in environments where there is a very high prevalence of ear disease cannot be expected from ad hoc or infrequent care. The development of local capacity complemented by regular and other distance enabled visiting specialist services are crucial to cost effective care and improved outcomes.

There is also evidence that some initiatives are positively impacting otitis media incidence and chronicity and reducing hearing loss in children. For instance, data from the NT Hearing Health Program showed that, from July 2012 to December 2017, the percentage of children with ear disease decreased from 76% to 61% and the percentage of children with hearing loss decreased from 55% to 45%. The program also found that children aged 0-5 years who received audiology services were more likely to have improvements in hearing impairment and hearing loss over time compared with older children (AIHW, 2018).

Audiology Australia acknowledges and commends the extensive research, policies and service delivery initiatives that have been undertaken for more than two decades to address the high prevalence of otitis media among Aboriginal and Torres Strait Islander peoples. This work provides an evidence base which demonstrates that - with access to effective and culturally appropriate services - significant gains in hearing health can be achieved.

However, as noted by the Commonwealth Parliament:

While there are many laudable elements of Australia's system of providing hearing health care for children there is also one area where it is clearly failing. The prevalence of otitis media infections among Aboriginal and Torres Strait Islander children is at crisis point (House of Representatives, 2017).

At the same time, the World Health Organization (WHO) has over many years highlighted its ongoing concerns about the persistent high prevalence of chronic ear diseases. The recent WHO (2017b) resolution on deafness and hearing loss emphasised the need for a national, coordinated approach to hearing health care.

This is what needs to happen in Australia. To address the high prevalence of otitis media, a comprehensive and coordinated approach developed under Aboriginal and Torres Strait Islander leadership through representative bodies is needed. This approach needs to combine prevention, education, early detection and treatment, coordinated management of service pathways and patient follow-up and support, and research.

An important part of this will be the advocacy of Audiology Australia and its members in advising and advocating for effective services and supports to prevent, identify and manage the hearing disability associated with ear disease.

In particular, in Audiology Australia's view, there is a key issue that is all too often under emphasised in models of care – that is, hearing assessment and rehabilitation services. Effective otitis media and hearing services are not universally available and there are significant access and equity challenges on a national scale. This needs to change.

Recommendation 1: That a coordinated and adequately resourced national Aboriginal and Torres Strait Islander framework for hearing health be developed under Aboriginal and Torres Strait Islander leadership in order to implement national standards and approaches based on successful, evidence-based models of care, optimise coordination of services and improve equitable access to effective hearing health care services.

Aboriginal and Torres Strait Islander Health Workforce

In order to strengthen the pathway to specialist hearing services and to enable families to access hearing health care services regularly for diagnosis and follow-up, improved and increased primary hearing health care services are required - especially in rural and remote parts of Australia.

A key way to build an appropriate and capable primary health workforce and to ensure that the health system has the capacity to address the hearing health care needs of Aboriginal and Torres Strait Islander peoples is through Aboriginal and Torres Strait Islander Health Practitioners. Through their use of language, cultural and social networks and knowledge to communicate effectively with clients, these workers help improve access to services and ensure culturally appropriate care in the services that they and their non-Indigenous colleagues deliver (Australian Government, 2017).

As the majority of primary health services do not have the capacity to deliver full diagnostic hearing services, Aboriginal and Torres Strait Islander Health Practitioners and other primary health care staff should be trained in a threshold-seeking audiometry approach. In particular, what is needed is a significant increase in:

- primary health care staff who are capable of screening audiometry when indicated in order to identify 0-3 year old children in particular at risk of significant hearing loss for referral.
- access to diagnostic audiometry – whether through Aboriginal and Torres Strait Islander Health Practitioners, , other primary health staff trained in audiometry or local or visiting diagnostic health services. In order to reduce the age at which hearing loss is first identified in young children, it is also important to have access to audiologists trained in Visual Reinforcement Orientation Audiometry.

Building an appropriate and capable primary health workforce , including Aboriginal and Torres Strait Islander Health Practitioners is an essential element of a national approach to otitis media. Yet, Aboriginal and Torres Strait Islander peoples are significantly under-represented in the health workforce especially among university trained professions, including audiology. Therefore, improving and supporting the participation of Aboriginal and Torres Strait Islander peoples in health training courses and tertiary education for health-related disciplines is vital to increasing Aboriginal and Torres Strait Islander participation in the health workforce (Australian Government, 2017). There are very substantial health care benefits to be gained by supporting the growth of health professions among Aboriginal and Torres Strait Islander peoples and to enable pathways into health professions such as audiology.

To facilitate this, Audiology Australia strongly supports increasing the numbers of, and resources for, Aboriginal and Torres Strait Islander Health Practitioners to deliver primary health care hearing services. In particular, supporting those employed by Aboriginal Community Controlled Health Organisations (ACCHOs) –

primary health care services initiated and owned by a local Aboriginal community to deliver culturally appropriate health care to that community – is key.

In addition, Audiology Australia also strongly supports an increase to the small but growing number of audiologists working for ACCHOs to provide hearing health care services. These audiologists provide diagnostic hearing services, facilitate referrals to specialist practitioners, and provide support and skills development to primary health co-workers. When access to specialist services is limited, review by an audiologist in the primary health care setting can facilitate the identification of otitis media and subsequent referral to specialist services (Gunasekera et al., 2018).

Recommendation 2: That Australian Governments commit long-term funding for:

- **supporting and expanding the Aboriginal and Torres Strait Islander health workforce who are trained to coordinate and deliver hearing health care programs**
- **encouraging and facilitating the upskilling of other health professionals in the prevention, detection and management of ear disease and conductive hearing loss, complemented by development, support for and use of on-line modules and on-site training by specialist visiting providers.**

Another potential initiative to improve hearing health care within remote communities is to replicate a model of care that is currently available in the NT. In the NT, an Aboriginal Health Practitioner can possess, supply and administer prescription-only medicines to their patients, for instance, antibiotics for hearing health conditions.

Given that there may be multiple strains of bacteria that lead to the development of otitis media in Aboriginal and Torres Strait Islander communities, the ability to prescribe and supply the most appropriate kind of antibiotics within a short time frame is very important. It is recommended that this model of care for appropriately trained Aboriginal Health Practitioners be extended on a national basis.

Recommendation 3: To increase access to services and appropriate treatment for hearing health care, it is recommended that Aboriginal Health and Torres Strait Islander Practitioners in all jurisdictions have the ability to possess, supply and administer antibiotics for hearing health conditions consistent with the current model of care in the NT.

Medicare

Another way to increase access to hearing health care services for Aboriginal and Torres Strait Islander peoples is via enabling audiologists to directly provide these services through the Medicare Benefits Scheme (MBS).

Currently, under the MBS, audiologists can utilise item 81310 to provide services to Aboriginal and Torres Strait Islander patients if a medical practitioner has undertaken a health assessment and identified a need for follow-up allied health services or the person's shared care plan identifies the need for follow-up allied health services. While audiologists can provide up to 5 services per calendar year under item 81310, 13 other health professions are also eligible to utilise any or all of these appointments.

Evidence indicates that children who receive multiple (2 or more) hearing assessments are more likely to see evidence of improved outcomes (AIHW, 2018). Ongoing and follow-up assessment enables better identification of ear conditions and hearing loss and informs clinical decision making for medical or surgical management. Conversely, limited access to audiological evaluation from a shared pool of allied health services may limit capacity for more timely intervention and follow-up.

However, since the introduction of 81310 ten years ago, there have only been 4,132 episodes of audiology services delivered. Given the known prevalence of chronic ear disease and hearing loss among Aboriginal and Torres Strait Islander peoples, this represents a significant mismatch in expectation and reality, indicating either a system or service access failure.

To address this issue, Audiology Australia recommends that the MBS be amended to create a separate item outside of the Allied Health and Chronic Disease Management Services MBS items to enable audiologists to claim against Medicare directly for the provision of these services and to be able to provide an increased number of audiological services to Aboriginal and Torres Strait Islander peoples.

This would enable audiologists to make an immediate positive impact in terms of devoting more time and resources to improving the hearing health of Aboriginal and Torres Strait Islander peoples, including having more time to contribute to the planning and review of care plans of patients with complex/chronic needs. This is particularly important for those people who cannot be appropriately assessed by anyone other than an audiologist, for example, children aged under three years or with conditions that increase the complexity of hearing evaluation.

Recommendation 4: To increase access to hearing health care services for Aboriginal and Torres Strait Islander peoples, an additional MBS item number be created outside of the Allied Health and Chronic Disease Management Services items to enable audiologists to claim Medicare for this purpose directly and to provide an increased number of audiological services.

Prevention and detection of ear disease and hearing loss

Prevention of hearing loss through early identification and management of otitis media is highly cost-effective (WHO, 2017a). Research suggests that the high prevalence of otitis media in Aboriginal and Torres Strait Islander communities is due to multiple bacterial viruses that can affect children within the first months of their lives, leading to ongoing ear infection. This is compounded by other factors related to social circumstances in Aboriginal and Torres Strait Islander communities such as: crowded or poorly maintained housing, a lack of access to health services in remote areas and circumstances that do not support adequate hygiene (House of Representatives, 2017). Yet, all these social determinants of health – that underpin high rates of chronic ear disease amongst Aboriginal and Torres Strait Islander communities – can all be changed.

Given the strong links between the social conditions and health of Aboriginal and Torres Strait Islander peoples, Audiology Australia considers that there needs to be a much stronger emphasis on addressing the prevailing social factors that determine health and wellbeing, including hearing health.

Measures designed to reduce risk factors for otitis media and the long term negative effects associated with childhood conductive hearing loss are also particularly important. Some of these measures include a focus on clean faces and safe washing facilities, involving the creation and delivery of integrated health promotion messages, good hygiene programs developed and expanded in schools and maintenance and repair of washing facilities in housing and schools.

Another key strategy is the prevention of long term consequences of otitis media related hearing loss through appropriate community-based programs. These approaches support families to enrich their child's language environment to mitigate for the auditory deprivation experienced during key language learning periods (0-3.5 years). Examples of these strategies include:

- providing families with evidence-based strategies that increase the child's exposure to and practice of language
- helping families understand the importance of hearing friendly listening environments

- providing strategies on how to improve their listening environments – especially in early childhood centres and schools and access to consistent quality auditory input through the fitting of appropriate hearing devices
- access to speech therapy and other early intervention therapies to support hearing disability.

The downstream costs of not addressing hearing and other health issues at an early age can be catastrophic for individuals, families and communities and significantly contribute to national health and other support structure demands and costs.

If present, otitis media in Aboriginal and Torres Strait Islander children may be difficult to detect. Often, otitis media is pain free, meaning parents are often unaware that their child has an ear infection (Darwin Otitis Guidelines Group et al, 2010). Once detected, ear disease is proven to be controlled by early intervention, treatment with antibiotics, and ongoing management entailing monitoring and education.

Where hearing loss is present, access and referral to a range of health services is needed. While there is a need for more specialist and audiology services, it is critically important that there is also a skilled and well-resourced Aboriginal and Torres Strait Islander primary health care resident workforce in place to provide consistent and culturally appropriate hearing health care.

Recommendation 5: To develop as a priority, a national implementation plan for effective strategies that prevent chronic otitis media and mitigate (prevent) the long-term consequences of conductive hearing loss (rehabilitation interventions/therapies) in those aged under 6 years (0-5 years) in recognition of the life-long impacts of chronic otitis media-related developmental impacts and hearing loss.

Recommendation 6: Given the persistent early onset and high prevalence of ear disease, establish a minimum set of primary care hearing health check points, including well babies, for Aboriginal and Torres Strait Islander children aged 0-5 years.

Education

Good hearing health is crucial to achieving positive educational outcomes and hearing loss experienced during childhood may result in significant communication difficulties in adulthood, which can impact on relationships and employment opportunities.

An effective and practical measure to enable hearing impaired children to participate fully in the classroom environment is the introduction of soundfield amplification systems (SAS) into all school classrooms and individual amplification devices where indicated for one-to-one and group learning. SAS in classrooms involves a small microphone worn by the teacher connected to speakers around the room. The speakers amplify the teacher's voice, enabling it to be heard at a uniform volume throughout the room without it being too loud for students who do not have hearing difficulties. However, SAS are less effective when there are poor classroom acoustics, meaning that good acoustic design and planning is crucial for good listening and learning environments.

In 2017, the Catholic school sector in the NT commenced the introduction of SAS into all school classrooms. Audiology Australia strongly supports the expansion of this scheme and the establishment of SAS in all school classrooms on a national basis.

Another important aspect of promoting hearing health in classrooms is teachers' professional development as it is common for teachers to arrive in remote classrooms with little understanding of hearing loss, hearing health

care and how to manage their impacts within the classroom environment. Therefore, it is important that teachers have regular professional development about hearing health and classroom accommodations and that this be part of a KPI system for schools in remote communities, or schools with a large proportion of Aboriginal and Torres Strait Islander children, particularly in communities experiencing socio-economic hardship.

Recommendation 7: That the Federal and State Governments ensure all school children with impaired hearing are able to fully participate in the classroom environment through provision of funding for:

- **soundfield amplification systems and acoustic standards for educational settings be available and maintained in all school classrooms - especially in rural and remote parts of Australia**
- **training and professional development of teachers in hearing loss, hearing health and how to manage these within the classroom environment.**

Hearing loss in the prison system

Hearing loss is a major issue for Aboriginal and Torres Strait Islander peoples in the prison system. Hearing impairment among adult Aboriginal and Torres Strait Islander prisoners is estimated to be extremely high— affecting between 80–95% of Aboriginal and Torres Strait Islander prisoners (LCA, 2015).

This high prevalence of hearing loss can result in communication difficulties for Aboriginal and Torres Strait Islander peoples when involved with the criminal justice system and, in particular, impacts on their ability to understand or participate in legal proceedings. This is especially a problem where English is a person's second or third language. Hearing loss can also compound other forms of disadvantage regularly experienced by Aboriginal and Torres Strait Islander peoples, including unemployment and poor school performance, therefore making entry into the criminal justice system more likely (ALRC, 2017).

Recommendation 8: All Aboriginal and Torres Strait Islander peoples currently incarcerated, entering custody, on remand or under sentence should undergo a hearing health assessment and be supplied with treatment and/or hearing rehabilitation as needed.